18/04/2024, 18:04 Day4

```
In [1]: import pandas as pd
    df = pd.read_csv('Items.csv')
    df
```

Out[1]:		ID	Name	catagery	price	quantity
	0	1	Vegetables	Grade1	30	2
	1	2	Fruits	Grade2	45	4
	2	3	Rice	Grade3	69	6
	3	4	Ice-creams	Grade4	58	5
	4	5	Chocolate	Grade5	26	8
	5	6	Roti	Grade6	54	7
	6	7	Wheat	Grade7	25	9
	7	8	Sugarcane	Grade8	36	3
	8	9	Masala	Grade9	87	10
	9	10	Sweets	Grade10	12	25

```
In [3]: #filling empty cells
x = df["Name"].mode()[0]
df["Name"].fillna(x, inplace = True)
df
```

```
Out[3]:
             ID
                     Name catagery price quantity
                              Grade1
                                         30
                                                    2
          0
              1
                 Vegetables
              2
                              Grade2
                                         45
                                                    4
                      Fruits
          2
              3
                              Grade3
                                         69
                                                    6
                       Rice
              4 Ice-creams
                              Grade4
                                         58
                                                    5
                                                    8
          4
                  Chocolate
                              Grade5
                                         26
              5
                              Grade6
              6
                       Roti
                                         54
              7
                                                    9
          6
                     Wheat
                              Grade7
                                         25
                                                    3
                  Sugarcane
                              Grade8
                                         36
          8
              9
                    Masala
                              Grade9
                                         87
                                                   10
             10
                             Grade10
                                         12
                                                   25
                     Sweets
```

```
In [5]: y = df['price'].mean()
df['price'].fillna(y,inplace=True)
df
```

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```
Out[5]:
             ID
                      Name catagery price quantity
          0
              1 Vegetables
                               Grade1
                                          30
          1
                       Fruits
                               Grade2
                                          45
                                                      4
          2
               3
                        Rice
                               Grade3
                                          69
                                                      6
                                          58
                                                      5
          3
                  Ice-creams
                               Grade4
          4
               5
                  Chocolate
                               Grade5
                                          26
                                                      8
              6
                                                      7
          5
                        Roti
                               Grade6
                                          54
          6
              7
                      Wheat
                               Grade7
                                          25
                                                      9
                                                      3
          7
                  Sugarcane
                               Grade8
                                          36
          8
              9
                     Masala
                               Grade9
                                          87
                                                     10
            10
                              Grade10
                                          12
                                                     25
                     Sweets
          z = df['quantity'].mean()
          df
```

```
In [6]:
        df['quantity'].fillna(z,inplace=True)
```

```
Out[6]:
             ID
                      Name catagery price quantity
          0
              1
                 Vegetables
                                Grade1
                                           30
                                                       2
               2
          1
                                Grade2
                                           45
                                                       4
                       Fruits
          2
               3
                        Rice
                                Grade3
                                           69
                                                       6
                                                       5
          3
                  Ice-creams
                                Grade4
                                           58
          4
               5
                   Chocolate
                                Grade5
                                           26
                                                       8
                                                       7
          5
               6
                        Roti
                                Grade6
                                           54
          6
               7
                      Wheat
                                Grade7
                                           25
                                                       9
                                                       3
          7
               8
                  Sugarcane
                                Grade8
                                           36
          8
              9
                     Masala
                                Grade9
                                           87
                                                      10
             10
          9
                               Grade10
                                           12
                                                      25
                      Sweets
```

```
#sum of quantity
In [7]:
        sum = df['quantity'].sum()
        print("sum of quantity: ",sum)
```

sum of quantity: 79

```
#average of price
In [8]:
        avg = df['price'].mean()
        print("Average prices: ",avg)
```

Average prices: 44.2

```
In [10]:
         #top selling
         top = df['Name'].mode()[0]
         print("Top selling product: ",top)
```

Top selling product: Chocolate

```
#total sales
In [11]:
          tot = df['quantity'].sum()
```

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```
print("Toatal sales: ",tot)
         Toatal sales: 79
         #bus question
In [14]:
         class Vehicle:
             def __init__(self,make,model,year):
                  self.make=make
                  self.model = model
                  self.year = year
              def display_info(self):
                  print(f"Make: {self.make}.\nModel: {self.model}.\nYear: {self.year}.")
         class Bus(Vehicle):
             def __init__(self,make,model,year,seats):
                  super().__init__(make,model,year)
                  self.seats = seats
              def display_info(self):
                  super().display_info()
                  print(f"Number of seats: {self.seats}")
              def bus_fare(self,distance):
                  fare_pkms = 5
                  total_fare = fare_pkms*distance
                  return total_fare
         bus = Bus("Mahindra", "Thar", 2022, 4)
         bus.display_info()
         print("Bus fare for 10kms: ",bus.bus_fare(10))
         Make: Mahindra.
         Model: Thar.
         Year: 2022.
         Number of seats: 4
         Bus fare for 10kms: 50
In [ ]:
```